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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/815,556	03/12/1997	MICHAEL J. SULLIVAN	DLD-2-035-1	5989

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MICHELLE BUGBEE, ASSOCIATE PATENT COUNSEL
SPALDING SPORTS WORLDWIDE INC
425 MEADOW STREET
PO BOX 901
CHICOPEE, MA 01021-0901

EXAMINER

GRAHAM, MARK S

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 02/28/2003

35

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/815,556

Applicant(s)

SULLIVAN, MICHAEL J.

Examiner

Mark S. Graham

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nesbitt in view of Horiuchi et al. (Horiuchi). Nesbitt discloses the claimed invention with the exception of the particular materials utilized. However, one of ordinary skill in the art would, in view of Nesbitt's disclosure, recognize that other known materials could have been utilized in the invention so long as the cover comprised a harder inner layer overlaid by a softer outer layer. As disclosed by Horiuchi the use of high acid ionomers is known in the art. It would have been obvious to one of ordinary skill in the art to utilize the known materials disclosed by Horiuchi for their recognized advantages as noted by Horiuchi in the relationship suggested by Nesbitt to achieve a ball with such advantages.

Claims 6-8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of Sullivan '814.

Nesbitt does not suggest his outer cover as being a blend of hard and soft ionomer. Blends of hard and soft ionomer are known to provide a balance of distance, spin, and durability not obtainable previously (see Sullivan Col. 3, lines 38-64). It would have been obvious to one of ordinary skill in the art to have used a blend of hard and soft ionomer as Nesbitt's outer cover for the expected results.

Regarding the arguments on the use of high-acid ionomers to form Nesbitt's inner layer the examiner relies on Horiuchi to teach the benefits of high acid ionomers. As applicant

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acknowledges Nesbitt teaches that various ionomers may be used. Higher stiffness and higher impact resilience (resulting in better flying performance) is achieved when using ionomers of 16-30% acid. These are precisely the characteristic called for by Nesbitt of his inner layer (Col. 1, lines 57-60). Nesbitt does not explicitly teach any acid level in his inner cover ionomer (although inherently 15% is used). One practicing Nesbitt's invention would select ionomers of high flex modulus (i.e. stiffness) and coefficient of restitution (impact resilience). Ionomers of 16-30% acid meet the criteria.

Concerning the thickness of the cover layers note Nesbitt at Col. 3, lines 20-25.

Regarding the diameter of the ball note Nesbitt at Col. 1, line 36.

With regard to claim 5, Nesbitt states that the diameter of the ball may be increased by varying the thicknesses of the layers. Absent a showing of unexpected results the recited .300 and .375 dimensions would not have been unobvious to the ordinarily skilled artisan.

Concerning claims 9-11, Nesbitt recites that various soft, low flexural modulus resinous materials may be used for the outer layer and the examiner takes official notice that the claimed materials are commonly known materials possessing these properties.

Regarding the applicant's claim 6-8 and 12 arguments Sullivan is as relevant to the rejection as is Horiuchi. The reference has not been cited to show dual cover balls but rather that blends are known and used for their perceived advantages and thus would have been obvious to the ordinarily skilled artisan practicing Nesbitt's invention of using various materials to form his layers.

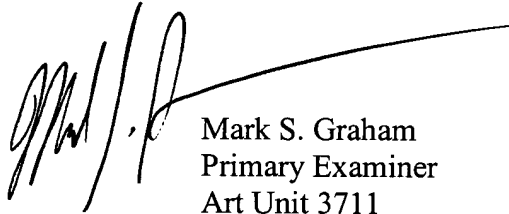
Applicant's arguments filed 12/27/02 have been fully considered but they are not persuasive.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Mark S. Graham at telephone number 703-308-1355.

MSG
2/26/03



Mark S. Graham
Primary Examiner
Art Unit 3711